

FCC Appendix RF Test Data for 5GWIFI

FCC ID : 2AW5W-R4MD

Company : EXING INC.

EUT : Dash Camera

Model Number : R4MD

Report No. : CTA26032800901

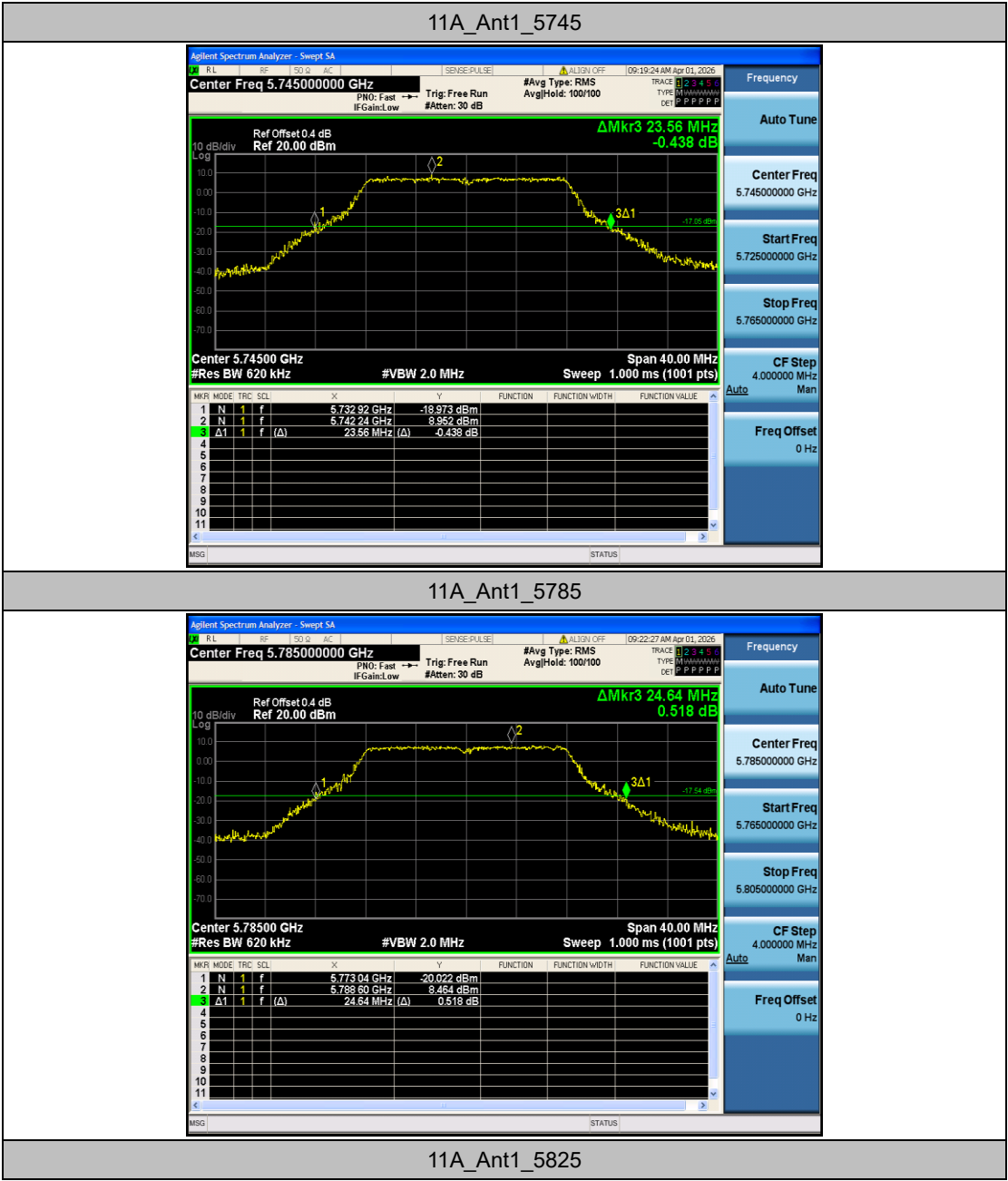
Reviewed By : Eric Wang

Appendix A1: Emission Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	23.560	5732.920	5756.480	---	---
		5785	24.640	5773.040	5797.680	---	---
		5825	23.760	5813.000	5836.760	---	---
11N20SISO	Ant1	5745	24.760	5732.520	5757.280	---	---
		5785	24.560	5772.840	5797.400	---	---
		5825	24.360	5812.520	5836.880	---	---
11N40SISO	Ant1	5755	44.800	5733.080	5777.880	---	---
		5795	45.280	5772.600	5817.880	---	---

Test Graphs





11N20SISO_Ant1_5745



11N20SISO_Ant1_5785



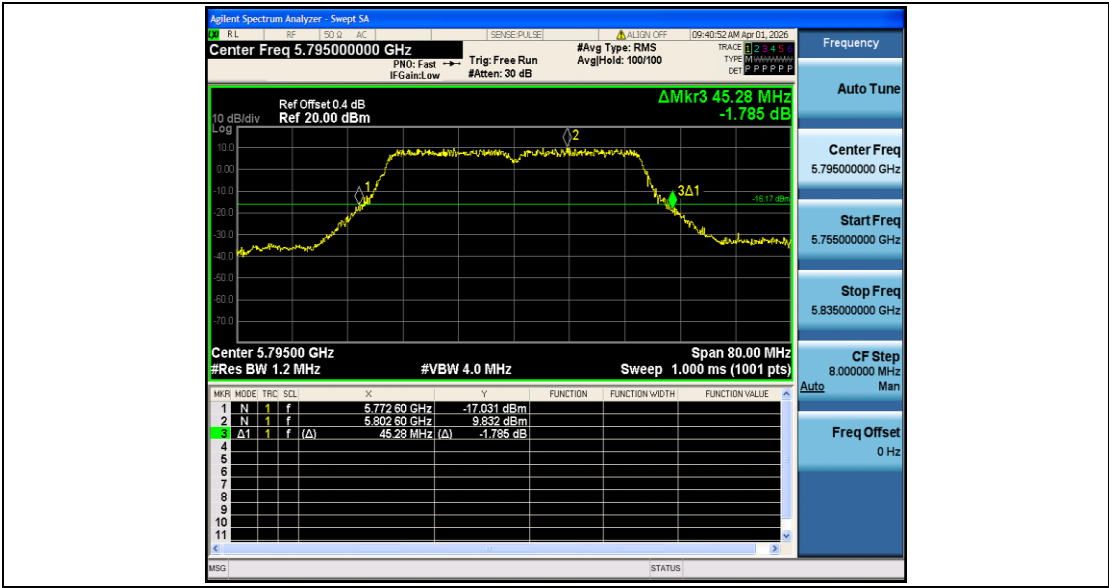
11N20SISO_Ant1_5825



11N40SISO_Ant1_5755



11N40SISO_Ant1_5795



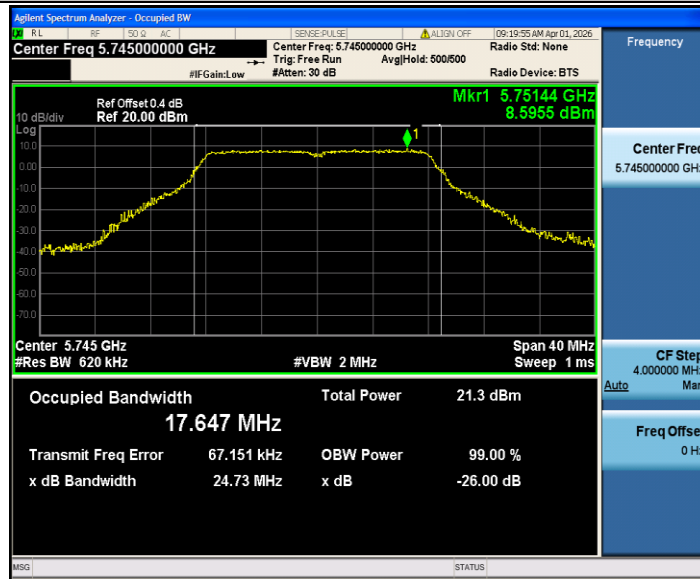
Appendix A2: Occupied channel bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	17.647	5736.2437	5753.8907	---	---
		5785	17.653	5776.2407	5793.8937	---	---
		5825	17.599	5816.2247	5833.8237	---	---
11N20SISO	Ant1	5745	18.662	5735.6640	5754.3260	---	---
		5785	18.659	5775.7080	5794.3670	---	---
		5825	18.733	5815.6484	5834.3814	---	---
11N40SISO	Ant1	5755	36.976	5736.6163	5773.5923	---	---
		5795	36.996	5776.5804	5813.5764	---	---

Test Graphs

11A_Ant1_5745



11A_Ant1_5785



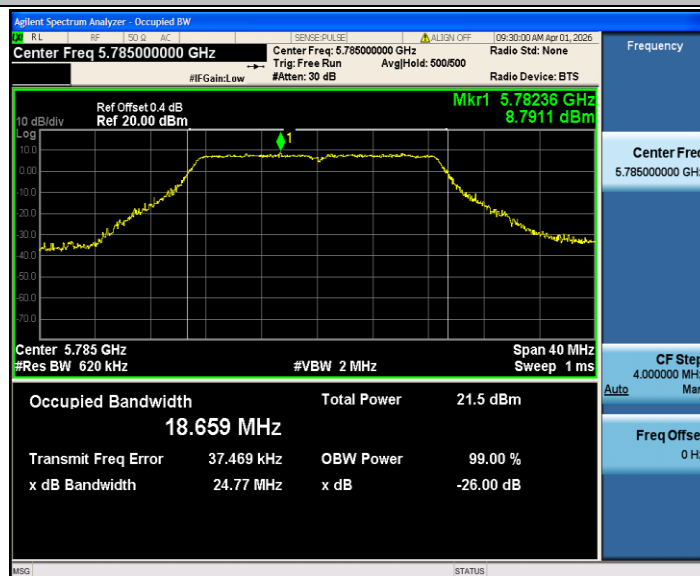
11A_Ant1_5825



11N20SISO_Ant1_5745



11N20SISO_Ant1_5785



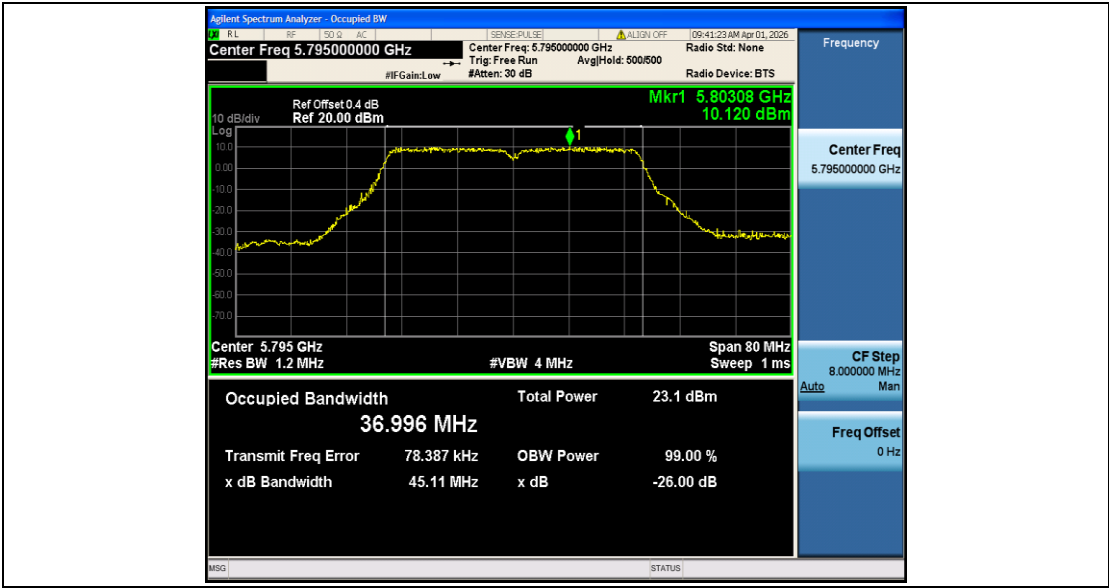
11N20SISO_Ant1_5825



11N40SISO_Ant1_5755



11N40SISO_Ant1_5795



Appendix A3: Min emission bandwidth

Test Result B4

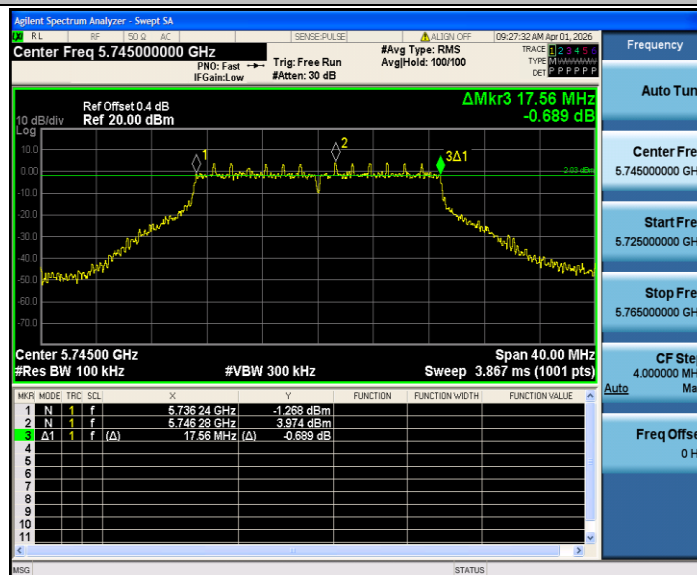
TestMode	Antenna	Freq(MHz)	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	16.320	5736.840	5753.160	0.5	PASS
		5785	16.320	5776.840	5793.160	0.5	PASS
		5825	16.280	5816.880	5833.160	0.5	PASS
11N20SISO	Ant1	5745	17.560	5736.240	5753.800	0.5	PASS
		5785	17.520	5776.240	5793.760	0.5	PASS
		5825	17.560	5816.200	5833.760	0.5	PASS
11N40SISO	Ant1	5755	36.320	5736.840	5773.160	0.5	PASS
		5795	36.320	5776.840	5813.160	0.5	PASS

Test Graphs B4

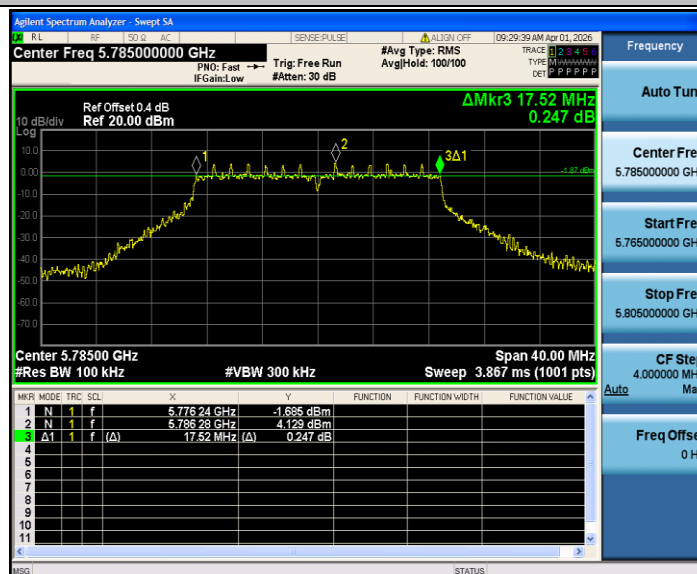




11N20SISO_Ant1_5745



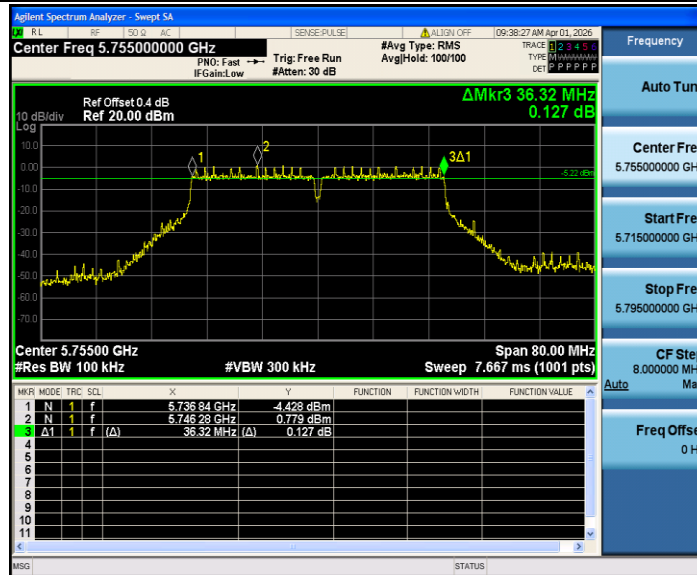
11N20SISO_Ant1_5785



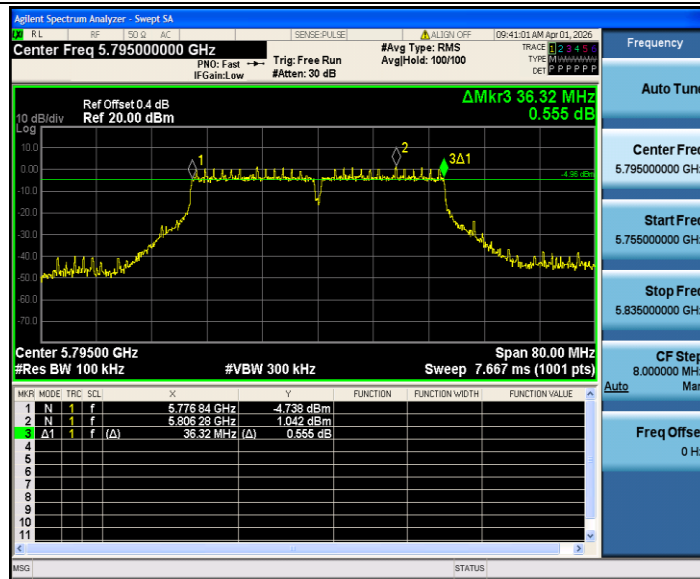
11N20SISO_Ant1_5825



11N40SISO_Ant1_5755



11N40SISO_Ant1_5795

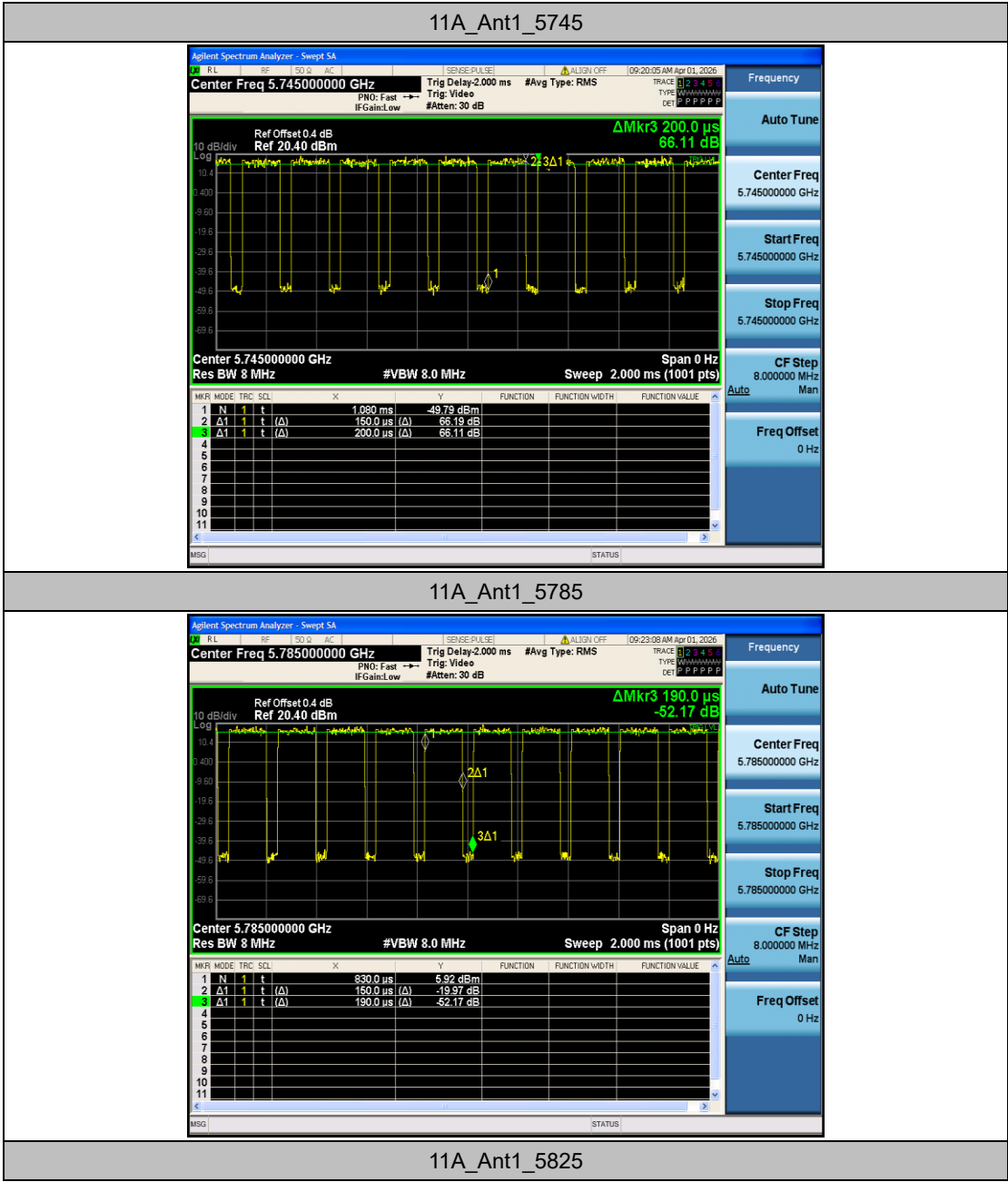


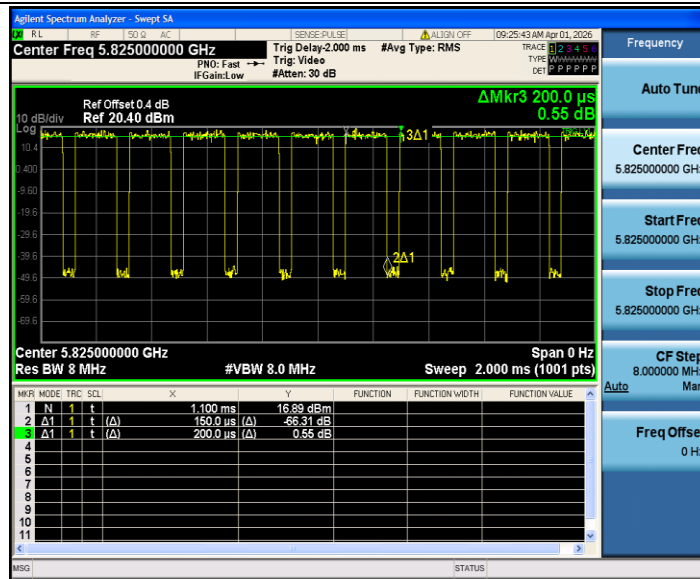
Appendix B: Duty Cycle

Test Result

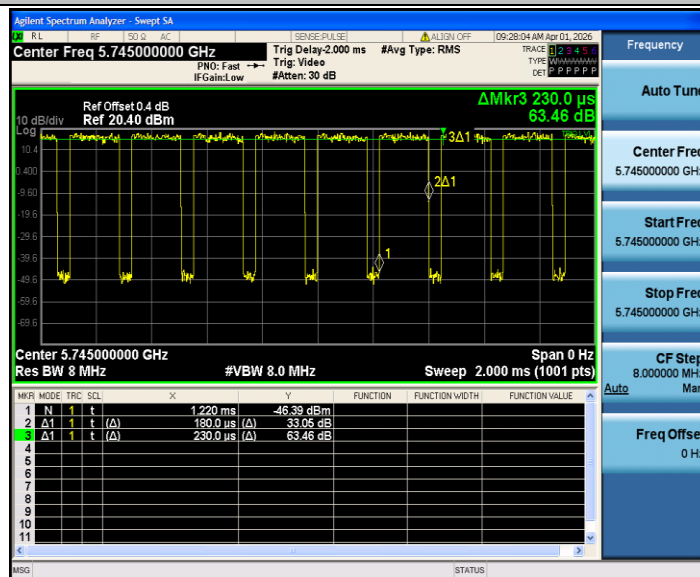
TestMode	Antenna	Freq(MHz)	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	DC Factor [dB]	Limit	Verdict
11A	Ant1	5745	0.15	0.20	75.00	1.25	---	---
		5785	0.15	0.19	78.95	1.03	---	---
		5825	0.15	0.20	75.00	1.25	---	---
11N20SISO	Ant1	5745	0.18	0.23	78.26	1.06	---	---
		5785	0.18	0.22	81.82	0.87	---	---
		5825	0.17	0.22	77.27	1.12	---	---
11N40SISO	Ant1	5755	0.18	0.23	78.26	1.06	---	---
		5795	0.18	0.23	78.26	1.06	---	---

Test Graphs

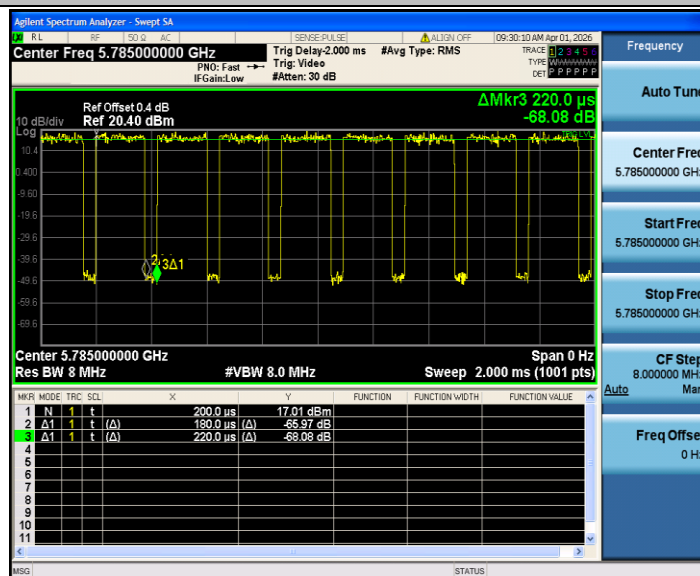




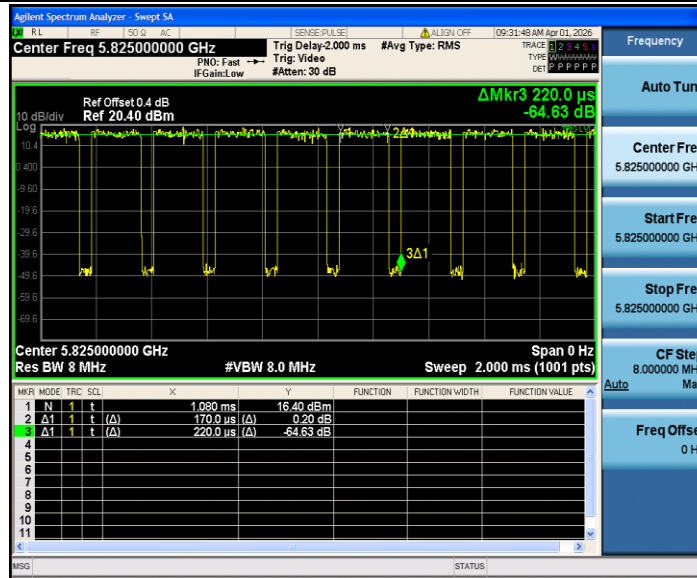
11N20SISO_Ant1_5745



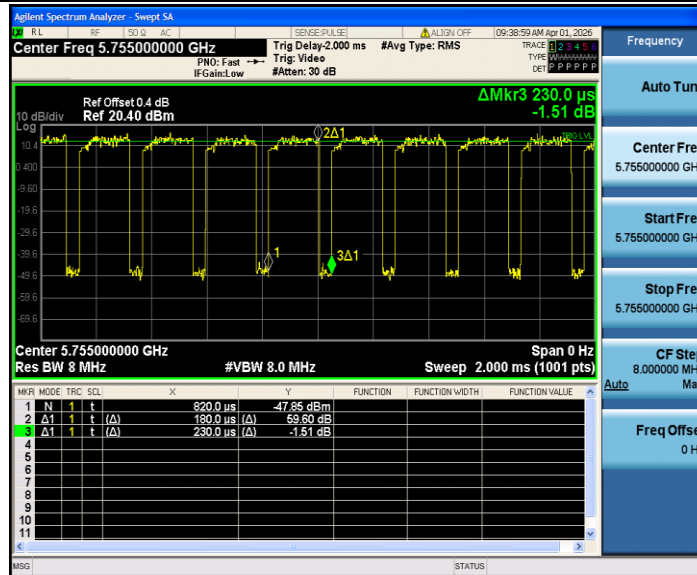
11N20SISO_Ant1_5785



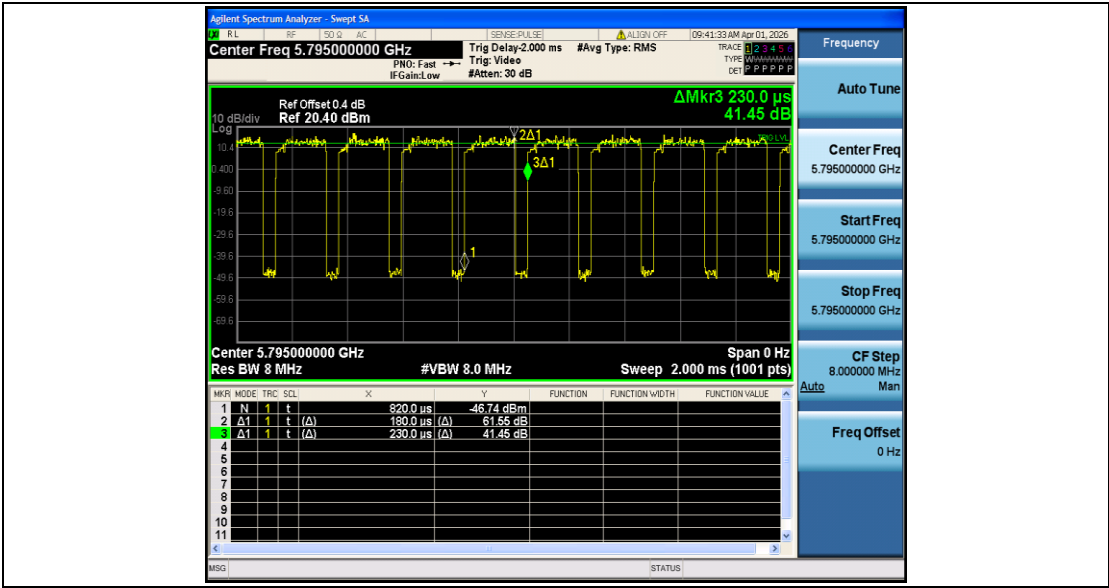
11N20SISO_Ant1_5825



11N40SISO_Ant1_5755



11N40SISO_Ant1_5795



Appendix C: Maximum conducted output power

Test Result Channel Power

Test Mode	Antenna	Freq(MHz)	Channel Power [dBm]	Duty Cycle [%]	DC Factor [dBm]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	5745	13.34	75.00	1.25	14.59	≤30.00	PASS
		5785	13.48	78.95	1.03	14.51	≤30.00	PASS
		5825	13.56	75.00	1.25	14.81	≤30.00	PASS
11N20SISO	Ant1	5745	13.55	78.26	1.06	14.61	≤30.00	PASS
		5785	13.73	81.82	0.87	14.60	≤30.00	PASS
		5825	13.68	77.27	1.12	14.80	≤30.00	PASS
11N40SISO	Ant1	5755	13.72	78.26	1.06	14.78	≤30.00	PASS
		5795	13.91	78.26	1.06	14.97	≤30.00	PASS

Appendix D: Maximum power spectral density

Test Result

TestMode	Antenna	Freq(MHz)	RawData [dBm/MHz]	DC Factor [dBm]	RBW Factor [dBm]	Result [dBm/MHz]	Limit [dBm/MHz]	Verdict
11A	Ant1	5745	-2.02	1.25	2.22	1.45	≤30.00	PASS
		5785	-1.78	1.03	2.22	1.47	≤30.00	PASS
		5825	-1.96	1.25	2.22	1.51	≤30.00	PASS
11N20SISO	Ant1	5745	-1.76	1.06	2.22	1.52	≤30.00	PASS
		5785	-1.94	0.87	2.22	1.15	≤30.00	PASS
		5825	-1.94	1.12	2.22	1.40	≤30.00	PASS
11N40SISO	Ant1	5755	-4.85	1.06	2.22	-1.57	≤30.00	PASS
		5795	-4.65	1.06	2.22	-1.37	≤30.00	PASS

Note: 1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.

P.S.D(dBm/500KHz)= P.S.D(dBm/300KHz)+10 log (500 kHz/300KHz).

2. RBW factor= 10 log (500 KHz /300 KHz) = 2.22 dB and The RBW Factor is compensated in the data graph.

Test Graphs

11A_Ant1_5745



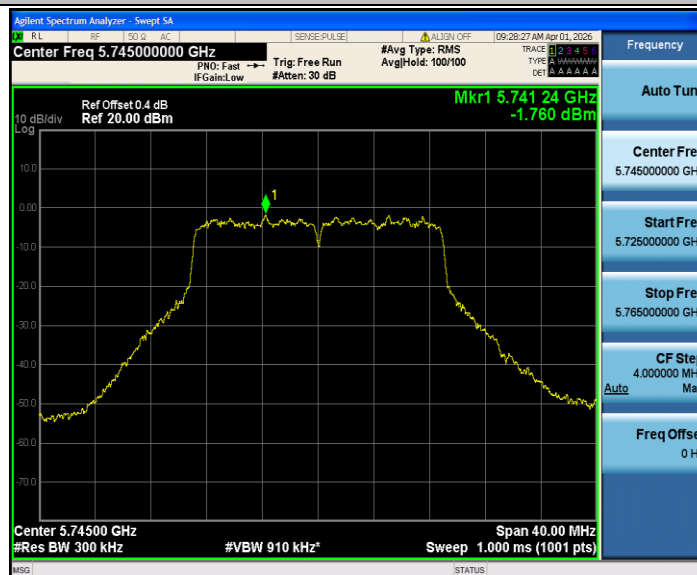
11A_Ant1_5785



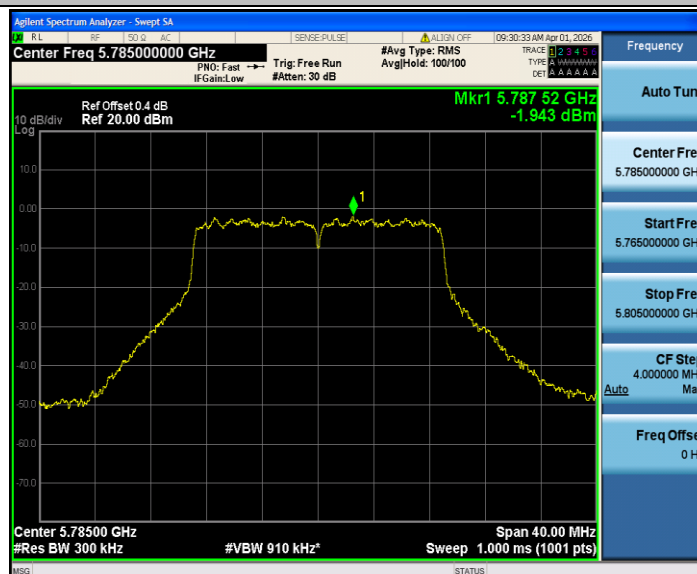
11A_Ant1_5825



11N20SISO_Ant1_5745



11N20SISO_Ant1_5785



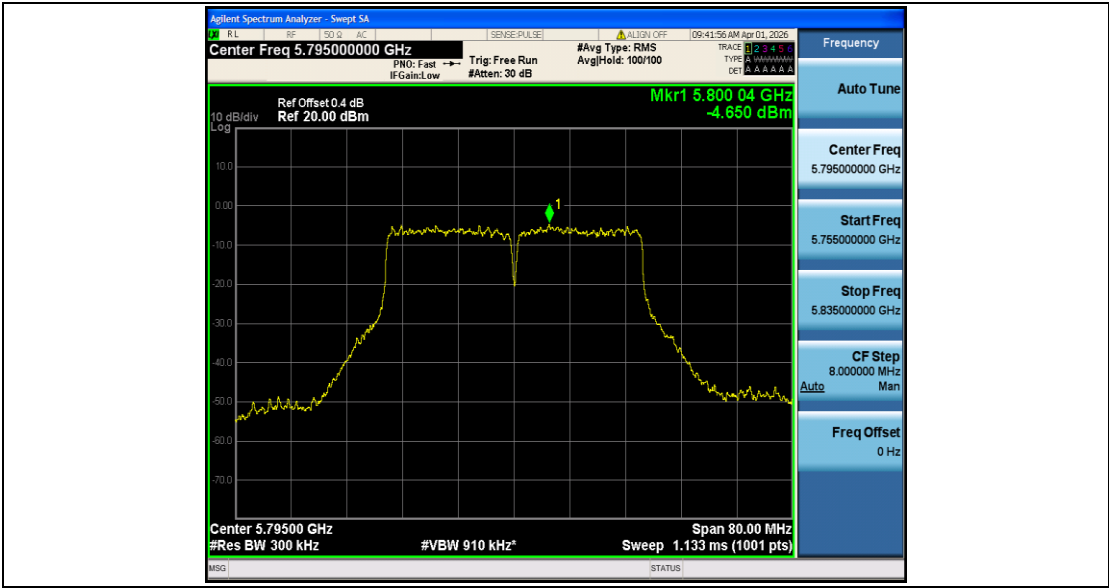
11N20SISO_Ant1_5825



11N40SISO_Ant1_5755



11N40SISO_Ant1_5795

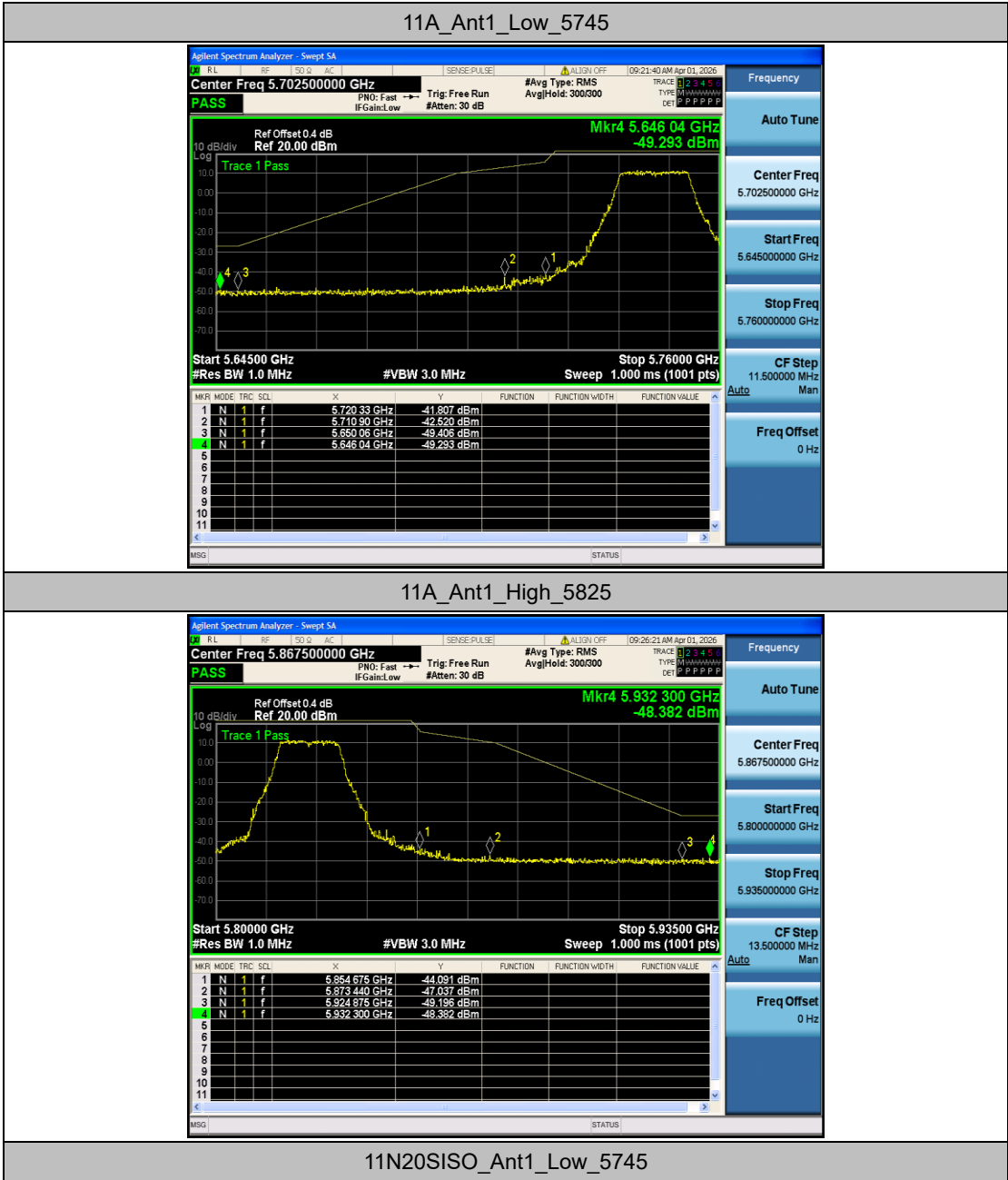


Appendix E: Band edge measurements

Test Result B4

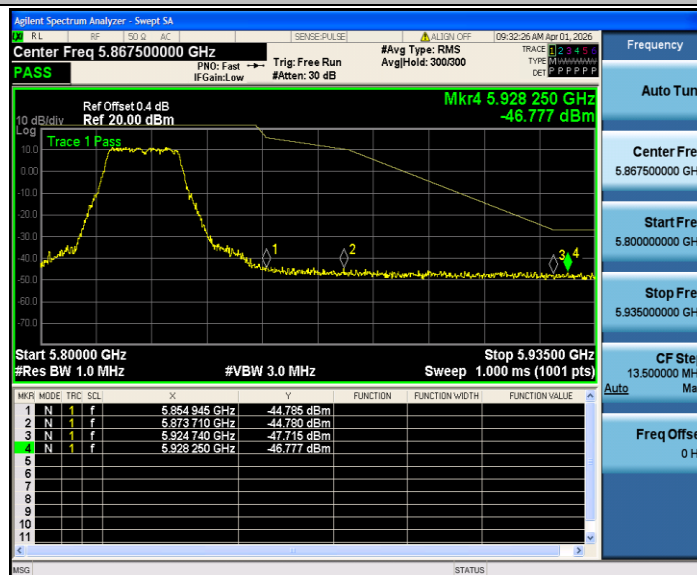
TestMode	Antenna	ChName	Freq(MHz)	FreqRange [MHz]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	Low	5745	5645~5650	-49.29	≤-27	PASS
				5650~5700	-49.41	≤-26.96	PASS
				5700~5720	-42.52	≤13.05	PASS
				5720~5725	-41.81	≤16.34	PASS
		High	5825	5850~5855	-44.09	≤16.34	PASS
				5855~5875	-47.04	≤10.44	PASS
				5875~5925	-49.2	≤-26.91	PASS
				5925~5935	-48.38	≤-27	PASS
11N20SI SO	Ant1	Low	5745	5645~5650	-46.86	≤-27	PASS
				5650~5700	-47.2	≤-26.10	PASS
				5700~5720	-45.37	≤10.15	PASS
				5720~5725	-39.02	≤16.34	PASS
		High	5825	5850~5855	-44.79	≤15.73	PASS
				5855~5875	-44.78	≤10.36	PASS
				5875~5925	-47.72	≤-26.81	PASS
				5925~5935	-46.78	≤-27	PASS
11N40SI SO	Ant1	Low	5755	5645~5650	-49.58	≤-27	PASS
				5650~5700	-50.12	≤-26.90	PASS
				5700~5720	-38.56	≤13.80	PASS
				5720~5725	-36.96	≤15.74	PASS
		High	5795	5850~5855	-46.82	≤15.66	PASS
				5855~5875	-46.76	≤10.29	PASS
				5875~5925	-48.06	≤-26.71	PASS
				5925~5935	-48.22	≤-27	PASS

Test Graphs B4

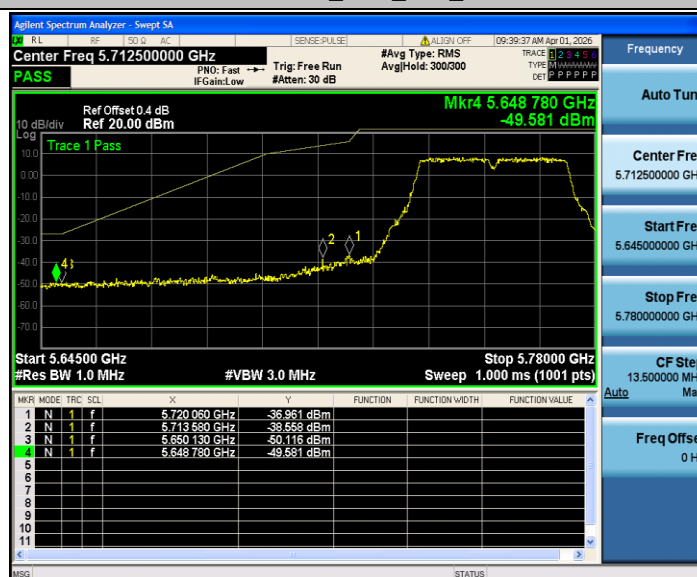




11N20ISO_Ant1_High_5825



11N40ISO_Ant1_Low_5755



11N40SISO_Ant1_High_5795

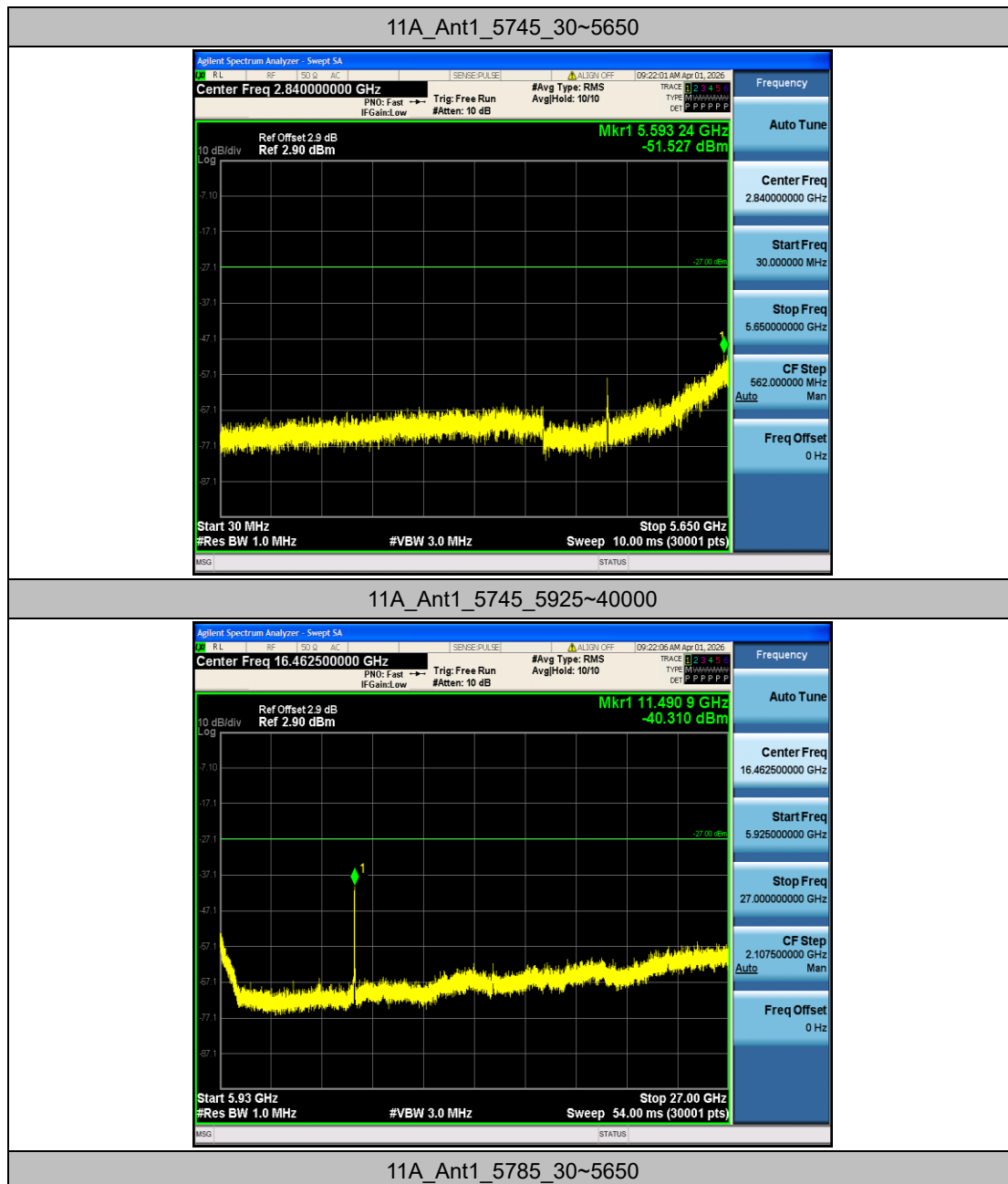


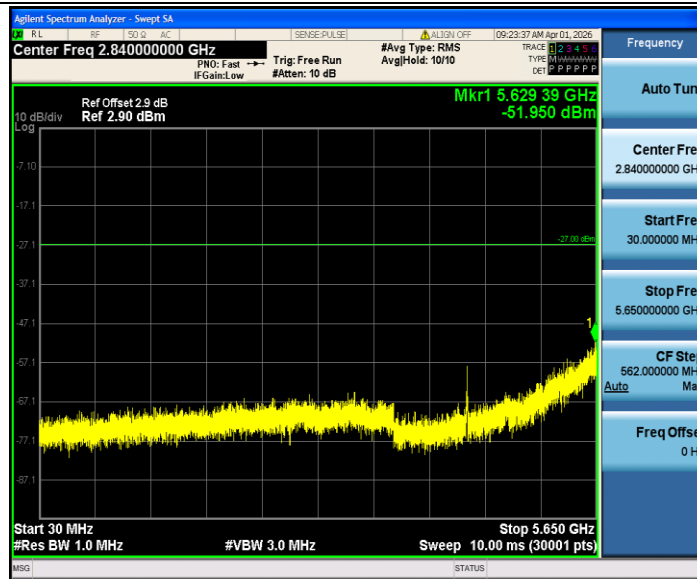
Appendix F: Conducted Spurious Emission

Test Result

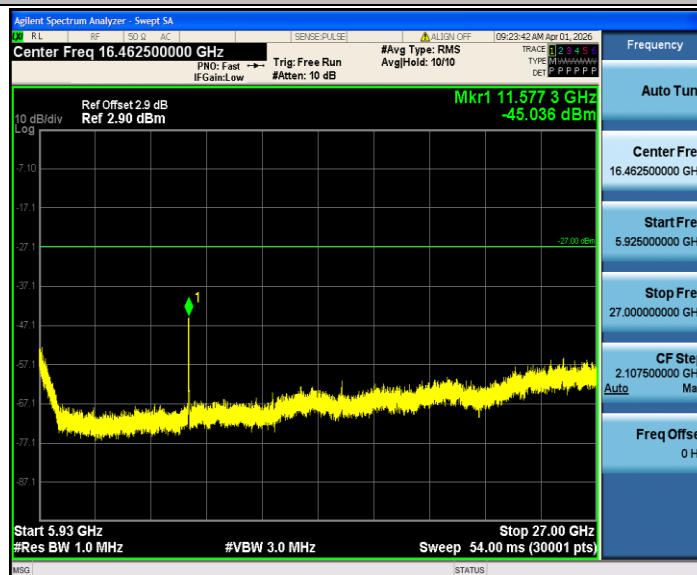
TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	Max. Fre [MHz]	Max. Level [dBm]	Limit [dBm]	Verdict
11A	Ant1	5745	30~5650	5593.24	-51.53	≤-27	PASS
			5925~40000	11490.91	-40.31	≤-27	PASS
		5785	30~5650	5629.39	-51.95	≤-27	PASS
			5925~40000	11577.32	-45.04	≤-27	PASS
		5825	30~5650	2477.7	-49.27	≤-27	PASS
			5925~40000	11647.57	-46.81	≤-27	PASS
11N20SISO	Ant1	5745	30~5650	5643.44	-47.55	≤-27	PASS
			5925~40000	11491.61	-42.5	≤-27	PASS
		5785	30~5650	5631.27	-52.51	≤-27	PASS
			5925~40000	11573.8	-45.25	≤-27	PASS
		5825	30~5650	5590.99	-48.85	≤-27	PASS
			5925~40000	11646.86	-46.16	≤-27	PASS
11N40SISO	Ant1	5755	30~5650	5639.51	-51.99	≤-27	PASS
			5925~40000	11512.69	-43.64	≤-27	PASS
		5795	30~5650	5605.98	-52.97	≤-27	PASS
			5925~40000	11587.15	-46.62	≤-27	PASS

Test Graphs

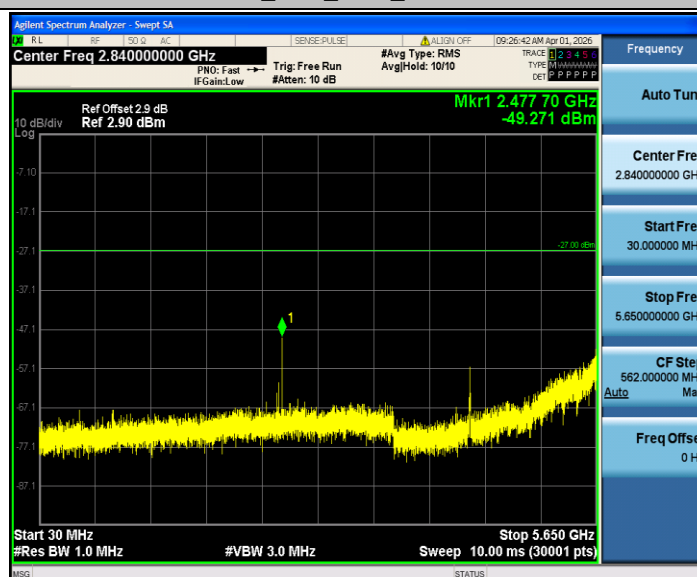




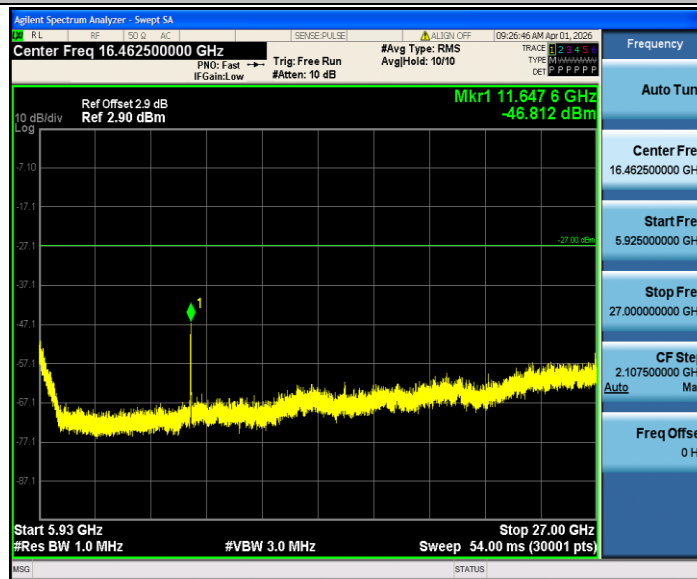
11A_Ant1_5785_5925~40000



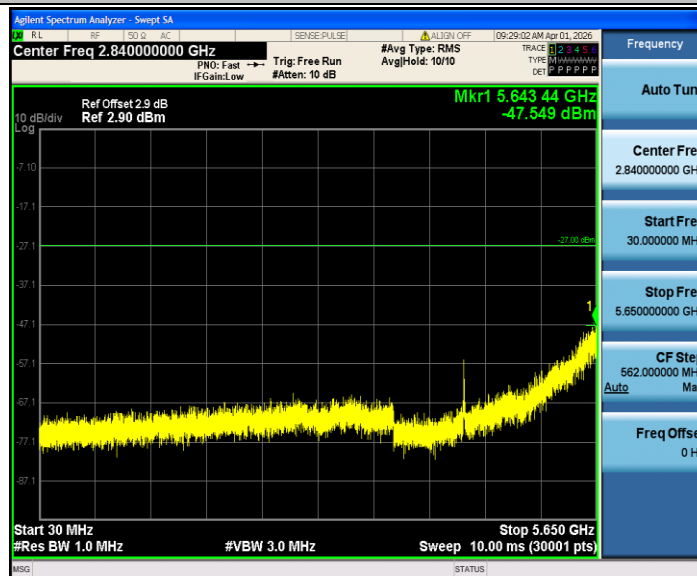
11A_Ant1_5825_30~5650



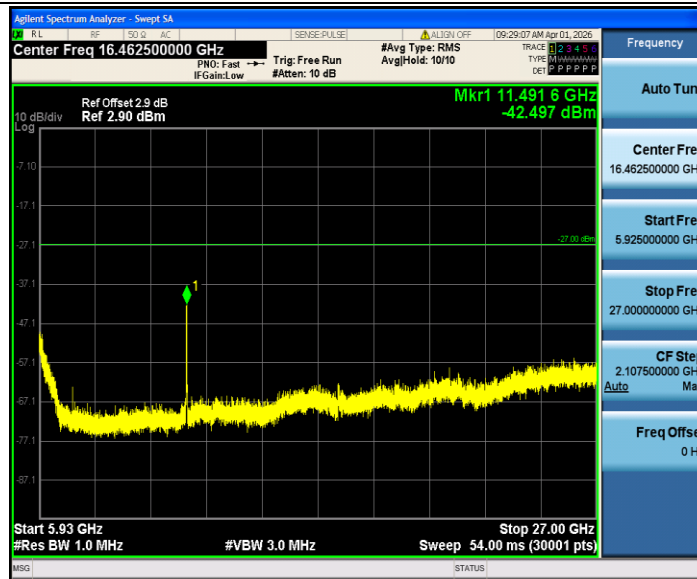
11A_Ant1_5825_5925~40000



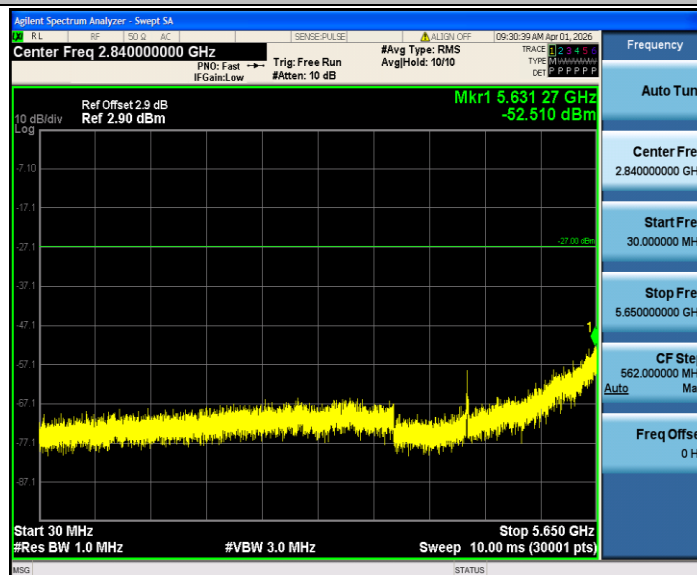
11N20SISO_Ant1_5745_30~5650



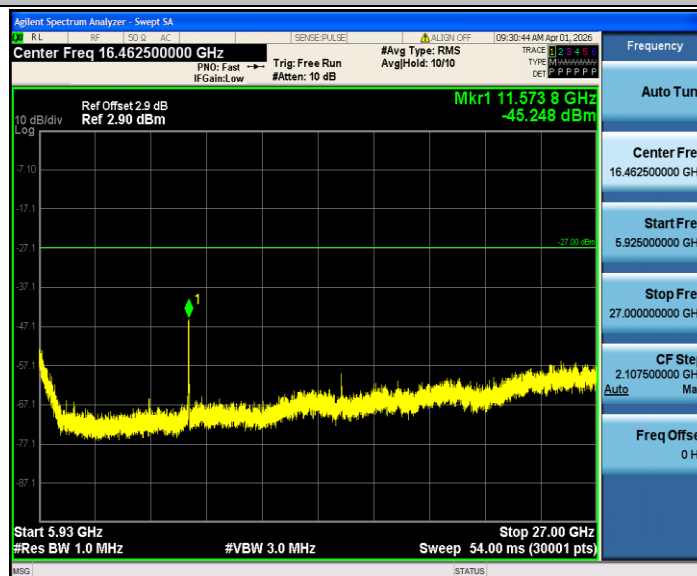
11N20SISO_Ant1_5745_5925~40000



11N20SISO_Ant1_5785_30~5650



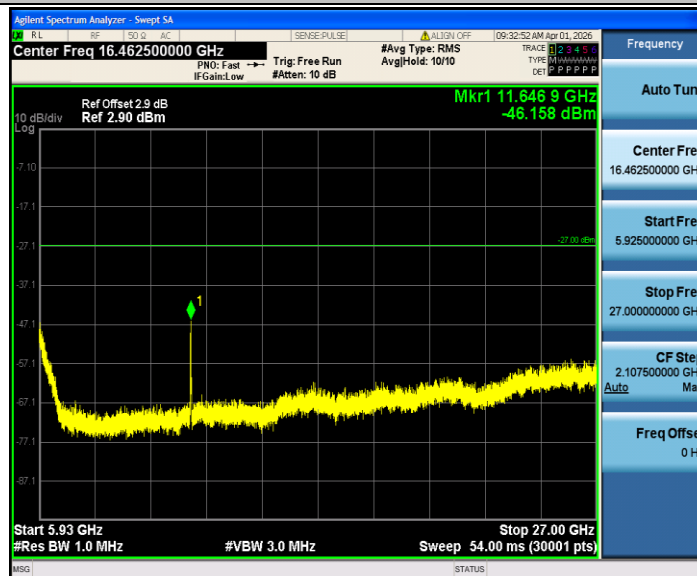
11N20SISO_Ant1_5785_5925~40000



11N20SISO_Ant1_5825_30~5650



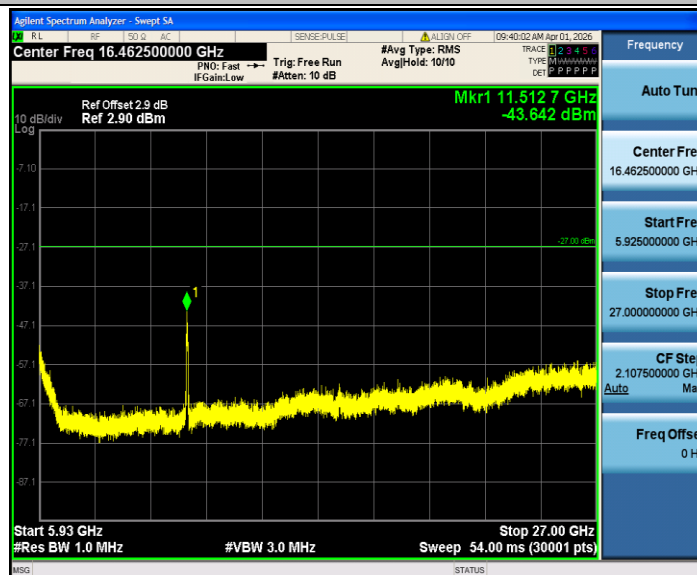
11N20SISO_Ant1_5825_5925~40000



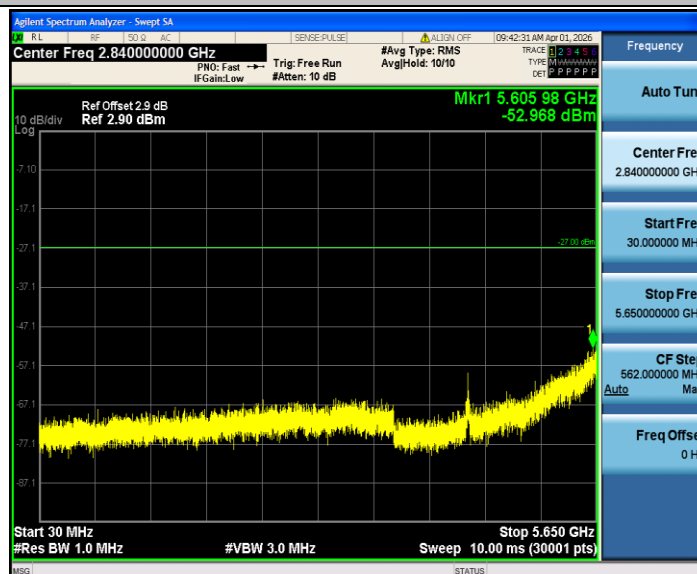
11N40SISO_Ant1_5755_30~5650



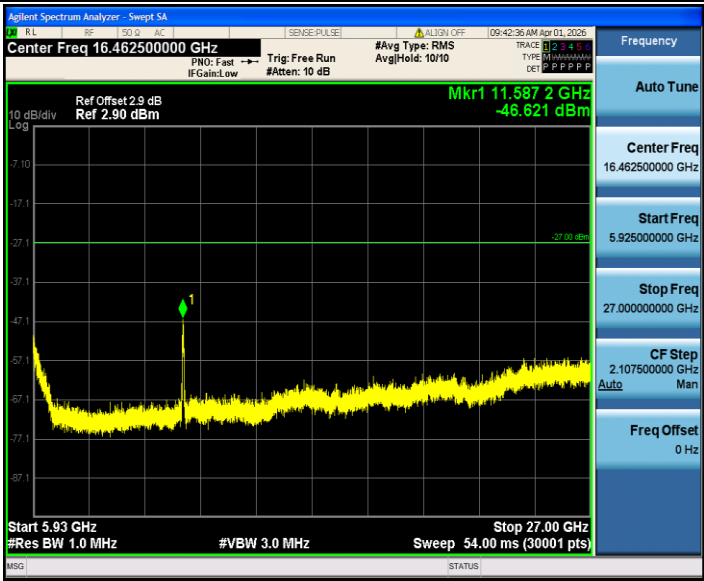
11N40SISO_Ant1_5755_5925~40000



11N40SISO_Ant1_5795_30~5650



11N40SISO_Ant1_5795_5925~40000



Appendix G: Emissions in Restricted Bands

Test Result

TestMode	Antenna	ChName	Freq(MHz)	Detector	Freq [MHz]	Result [dBm]	Gain [dB]	EIRP [dBm]	Limit [dBm]	Verdict
11A	Ant1	Low	5745	Peak	5650.000	-50.692	2.00	-48.692	≤-27.00	PASS
				Peak	5700.000	-50.03	2.00	-48.03	≤10.00	PASS
				Peak	5720.000	-44.67	2.00	-42.67	≤15.60	PASS
				Peak	5725.000	-37.12	2.00	-35.12	≤27.00	PASS
		High	5825	Peak	5850.000	-41.993	2.00	-39.993	≤27.00	PASS
				Peak	5855.000	-45.8	2.00	-43.8	≤15.60	PASS
				Peak	5875.000	-49.64	2.00	-47.64	≤10.00	PASS
				Peak	5925.000	-49.39	2.00	-47.39	≤-27.00	PASS
11N20SISO	Ant1	Low	5745	Peak	5650.000	-48.474	2.00	-46.474	≤-27.00	PASS
				Peak	5700.000	-47.12	2.00	-45.12	≤10.00	PASS
				Peak	5720.000	-44.2	2.00	-42.2	≤15.60	PASS
				Peak	5725.000	-37.99	2.00	-35.99	≤27.00	PASS
		High	5825	Peak	5850.000	-39.394	2.00	-37.394	≤27.00	PASS
				Peak	5855.000	-46.33	2.00	-44.33	≤15.60	PASS
				Peak	5875.000	-47.8	2.00	-45.8	≤10.00	PASS
				Peak	5925.000	-48.72	2.00	-46.72	≤-27.00	PASS
11N40SISO	Ant1	Low	5755	Peak	5650.000	-50.134	2.00	-48.134	≤-27.00	PASS
				Peak	5700.000	-47.51	2.00	-45.51	≤10.00	PASS
				Peak	5720.000	-40.12	2.00	-38.12	≤15.60	PASS
				Peak	5725.000	-39.15	2.00	-37.15	≤27.00	PASS
		High	5795	Peak	5850.000	-42.254	2.00	-40.254	≤27.00	PASS
				Peak	5855.000	-47.69	2.00	-45.69	≤15.60	PASS
				Peak	5875.000	-50.1	2.00	-48.1	≤10.00	PASS
				Peak	5925.000	-49.34	2.00	-47.34	≤-27.00	PASS

Note:

- For transmitters operating in 5150-5350 GHz band and 5470-5725 GHz band: The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.